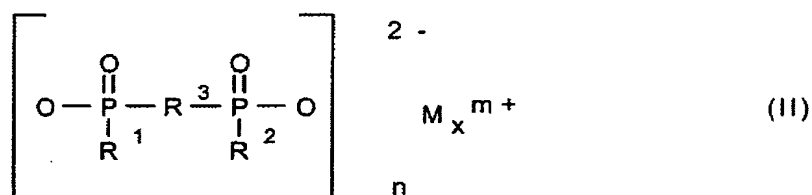
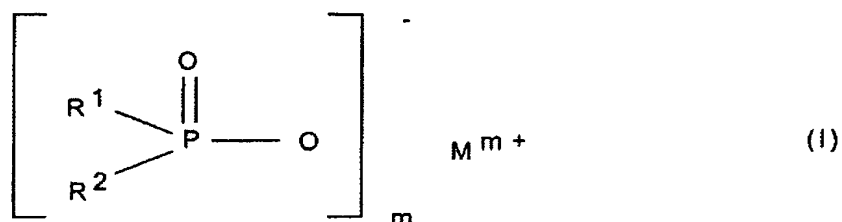


Patent claims:

1. A flame-retardant thermoset composition which comprises, as flame retardant, at least one phosphinic salt of the formula (I) and/or a diphosphinic salt of the formula (II) and/or polymers of these (component A)



where

R^1, R^2 are identical or different and are $\text{C}_1\text{-C}_6$ -alkyl, linear or branched, and/or aryl;

R^3 is $\text{C}_1\text{-C}_{10}$ -alkylene, linear or branched, $\text{C}_6\text{-C}_{10}$ -arylene, -alkylarylene or -arylalkylene;

M is Mg, Ca, Al, Sb, Sn, Ge, Ti, Zn, Fe, Zr, Ce, Bi, Sr, Mn, Li, Na, K and/or a protonated nitrogen base;

m is from 1 to 4;

n is from 1 to 4; and

x is from 1 to 4,

and also comprises as component B at least one synthetic inorganic compound and/or a mineral product.

2. A flame-retardant thermoset composition as claimed in claim 1, wherein R^1 and R^2 are identical or different and are C_1 - C_6 -alkyl, linear or branched, and/or phenyl.
3. A flame-retardant thermoset composition as claimed in claim 1 or 2, wherein R^1 and R^2 are identical or different and are methyl, ethyl, n-propyl, isopropyl, n-butyl, tert-butyl, n-pentyl and/or phenyl.
4. A flame-retardant thermoset composition as claimed in one or more of claims 1 to 3, wherein R^3 is methylene, ethylene, n-propylene, isopropylene, n-butylene, tert-butylene, n-pentylene, n-octylene or n-dodecylene.
5. A flame-retardant thermoset composition as claimed in one or more of claims 1 to 3, wherein R^3 is phenylene or naphthylene.
6. A flame-retardant thermoset composition as claimed in one or more of claims 1 to 3, wherein R^3 is methylphenylene, ethylphenylene, tert-butylphenylene, methylnaphthylene, ethylnaphthylene or tert-butylphenylene.
7. A flame-retardant thermoset composition as claimed in one or more of claims 1 to 3, wherein R^3 is phenylmethylene, phenylethylene, phenylpropylene or phenylbutylene.
8. A flame-retardant thermoset composition as claimed in one or more of claims 1 to 7, which comprises from 0.1 to 30 parts by weight of phosphinic salt of the formula (I) and/or a diphosphinic salt of the formula (II) and/or polymers of these (component A), and from 0.1 to 100 parts by weight of component B, per 100 parts by weight of thermoset composition.
9. A flame-retardant thermoset composition as claimed in one or more of

claims 1 to 8, which comprises from 1 to 15 parts by weight of phosphinic salt of the formula (I) and/or a diphosphinic salt of the formula (II) and/or polymers of these (component A), and from 1 to 20 parts by weight of component B, per 100 parts by weight of thermoset composition.

10. A flame-retardant thermoset composition as claimed in one or more of claims 1 to 9, wherein component B comprises an oxygen compound of silicon, magnesium compounds, metal carbonates of metals from main group two of the periodic table, red phosphorus, zinc compounds or aluminum compounds.

11. A flame-retardant thermoset composition as claimed in one or more of claims 1 to 10, wherein component B comprises oxygen compounds of silicon, salts and esters of orthosilicic acid and the condensation products thereof, silicates, zeolites, and silicas, glass, glass-ceramic or ceramic powders; the magnesium compounds comprise magnesium hydroxide, hydrotalcites, magnesium carbonates or magnesium calcium carbonates; the zinc compounds comprise zinc oxide, zinc stannate, zinc hydroxystannate, zinc phosphate, zinc borate or zinc sulfides; and the aluminum compounds comprise aluminum hydroxide or aluminum phosphate.

12. A flame-retardant thermoset composition as claimed in one or more of claims 1 to 11, further comprising as component C nitrogen compounds and/or phosphorus-nitrogen compounds.

13. A flame-retardant thermoset composition as claimed in one or more of claims 1 to 7, comprising from 0.1 to 30 parts by weight of phosphinic salt of the formula (I) and/or a diphosphinic salt of the formula (II) and/or polymers of these (component A), and from 0.1 to 100 parts by weight of component B, and from 0.1 to 100 parts by weight of component C, per 100 parts by weight of thermoset composition.

14. A flame-retardant thermoset composition as claimed in one or more of claims 1 to 7, comprising from 1 to 15 parts by weight of phosphinic salt of the formula (I) and/or a diphosphinic salt of the formula (II) and/or polymers of these (component A), and from 1 to 20 parts by weight of component B, and from 1 to 20 parts by weight of component C, per 100 parts by weight of thermoset composition.
15. A flame-retardant thermoset composition as claimed in one or more of claims 1 to 10, wherein the component C is melamine, a melamine derivative of cyanuric acid, a melamine derivative of isocyanuric acid, a melamine salt, such as melamine phosphate, melamine polyphosphate or melamine diphosphate, dicyandiamide or a guanidine compound, such as guanidine carbonate, guanidine phosphate or guanidine sulfate, and/or is a condensation product of ethyleneurea and formaldehyde and/or is a carbodiimide.
16. A flame-retardant thermoset composition as claimed in one or more of claims 1 to 14, which is a molding composition, a coating or a laminate made from thermoset resins.
17. A flame-retardant thermoset composition as claimed in claim 15, wherein the thermoset resins are unsaturated polyester resins or epoxy resins.
18. A process for preparing flame-retardant thermoset compositions as claimed in one or more of claims 1 to 17, which comprises mixing a thermoset resin with a flame retardant made from phosphinic salt of the formula (I) and/or a diphosphinic salt of the formula (II) and/or polymers of these (component A) with at least one component B, and wet-pressing (cold-pressing) the resultant mixture at pressures of from 3 to 10 bar and at temperatures of from 20 to 60°C.

19. The process for preparing flame-retardant thermoset compositions as claimed in one or more of claims 1 to 16, which comprises mixing a thermoset resin with a flame retardant made from phosphinic salt of the formula (I) and/or a diphosphinic salt of the formula (II) and/or polymers of these (component A) with at least one component B, and wet-pressing (warm- or hot-pressing) the resultant mixture at pressures of from 3 to 10 bar and at temperatures of from 80 to 150°C.

20. The process for preparing flame-retardant thermoset compositions as claimed in one or more of claims 1 to 16, which comprises mixing a thermoset resin with a flame retardant made from phosphinic salt of the formula (I) and/or a diphosphinic salt of the formula (II) and/or polymers of these (component A) with at least one component B, and processing the resultant mixture at pressures of from 50 to 150 bar and at temperatures of from 140 to 160°C to give prepregs.